UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10
1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

OFFICE OF
COMPLIANCE AND ENFORCEMENT

Reply to: OCE-084

Jennie Goldberg
Superfund Program Manager
Seattle City Light
700 Fifth Avenue, Suite 3200
PO Box 34023
Seattle, Washington 98124-4023

Re: Toxic Substances Control Act (TSCA) Risk-Based Disposal Approval for the Georgetown Steam Plant Interim Action Work Plan

Dear Ms. Goldberg:

This letter constitutes approval under the authority of 40 Code of Federal Regulations (C.F.R.) § 761.61(c) for the cleanup and verification sampling of certain polychlorinated biphenyl (PCB) remediation waste at Seattle City Light Georgetown Steam Plant (GSP) facility in Seattle, Washington. More specifically, this approval authorizes Seattle City Light (SCL) to perform interim cleanup[1] to remove soils contaminated by PCBs with as-found concentrations greater than or equal to 50 parts per million (ppm), and to perform verification sampling following removal of contaminated material as documented in the Georgetown Steam Plant Interim Action Work Plan, Reference 1 in Enclosure 1 to this approval. This approval is subject to the conditions below. The rationale of the U.S. Environmental Protection Agency (EPA) for establishing each of these conditions is contained in the Statement of Basis appearing as Enclosure 2 to this letter.

Background

The Washington State Department of Ecology (Ecology) and the EPA are working to clean up contaminated sediments and to control sources of recontamination in the Lower Duwamish Waterway (LDW) near Seattle, Washington. The LDW is an approximately 5.5 mile portion of the Lower Duwamish River which flows into Elliott Bay. The sediments along the LDW contain a wide range of contaminants which appears to be the result of years of nearby industrial activity and run off from urban areas. These contaminants include PCBs, PAHs (polycyclic aromatic hydrocarbons), chlorinated dioxins & furans, metals, and phthalates.

The EPA is leading the sediment contamination investigation for the LDW with support from Ecology. In 2001, the EPA added the LDW to the Superfund National Priorities List; Ecology added the LDW to the Washington Hazardous Sites List in 2002. The respective roles and responsibilities of the EPA and

[1] Consistent with the authority of 40 C.F.R. § 761.61(c) under which this approval is being issued, EPA is referring to work being authorized as an "interim cleanup action." This work is also being authorized by the Washington State Department of Ecology, under the authority of the Model Toxics Control Act, 70.105D Revised Code of Washington, as an "interim remedial action."

Ecology have been documented in "Lower Duwamish Waterway Site Memorandum of Understanding between the U.S. Environmental Protection Agency and the Washington State Department of Ecology," dated April 2004.

A number of sites and facilities in the vicinity of the LDW have been identified as sources contributing to sediment contamination. One area that has been identified as a source of PCB contamination is soils and groundwater near and along the fence line separating the Georgetown Steam Plant, and the area North Boeing Field (NBF) located within the Boeing Company Propulsion Engineering Labs (PEL) area (See Figure 1-1 of Reference 1). The Georgetown Steam Plant is owned by the City of Seattle, while North Boeing Field is owned by King County and The Boeing Company. PCBs from this source area are believed to have contaminated the Slip 4 area of the LDW through storm water discharges (Section 1 of Reference 1).

This approval, along with a parallel approval relating to similar work being performed by The Boeing Company on property adjacent to the Georgetown Steam Plant, is an interim cleanup action that will precede a full remedial investigation and feasibility study process planned for the overall site, which includes the GSP and NBF properties. The EPA expects this approval to be the first of a series of phased approvals, including a final cleanup decision, providing authorization for those aspects of the planned source control work subject to the requirements of 40 C.F.R. Part 761.

EPA's Approval

This written decision for a risk-based method for cleanup and verification sampling of PCB remediation waste is based on SCL's application for a risk-based disposal approval consisting of the documentation identified in Enclosure 1. All sections of SCL's application referenced in this approval are incorporated by reference. In granting this approval, the EPA finds that the proposed cleanup, verification and on-site storage for disposal of PCB remediation waste, subject to the conditions below, will not pose an unreasonable risk of injury to health or the environment. SCL shall ensure that activities conducted pursuant to this approval are in full compliance with the conditions stated herein. The conditions of this approval are enforceable under the Toxic Substances Control Act (TSCA) and implementing regulations at 40 C.F.R. § 761.61(c). Any actions by SCL which violate the terms and conditions of this letter may result in administrative, civil, or criminal enforcement by the EPA in accordance with Section 16 of TSCA, 15 USC § 2615.

Conditions

1. SCL is authorized to perform cleanup, verification sampling, and temporary on-site stockpile storage of PCB remediation waste with PCB concentrations greater than or equal to 50 ppm as documented in Reference 1.
2. SCL must complete work authorized by Condition 1 above by December 31, 2011. As a framework for anticipated final cleanup, this approval will remain in effect for the duration of such work requirements as the EPA may establish through future modifications of this approval. SCL may request an extension to this authorization by providing a written request to the EPA according to Condition 13 below.
3. In conducting work authorized by this approval, SCL shall ensure that effective controls are in place to prevent or minimize dispersal of soil and other material contaminated with PCBs. Such measures

may include, but are not limited to, use of exclusion and decontamination zones around work areas, and the source control activities documented in Section 3.6.1.1 of Reference 1. If water is used for dust control purposes, the amount of water shall be limited to that necessary for effective dust control to minimize the potential for the spread of contamination. All water used for decontamination and vehicle/truck washes shall be managed in the wastewater treatment system documented in Section 3.4 of Reference 1.

4. SCL shall ensure that any on-site storage of PCB remediation waste in temporary stockpiles is conducted in a manner that prevents, consistent with best management and construction practices, migration or dispersal of PCBs as necessary to ensure no unreasonable risk of injury to health or the environment. Gravity dewatering of PCB remediation waste must be carried out as authorized by the EPA according to information provided pursuant to Condition 5 below.

5. SCL shall ensure that any dewatering of excavated soils as discussed in Section 3.4 of SCL's application (Reference 1) will occur in the decant cell located, designed and operated as documented in Reference 7. In constructing the decant cell, SCL shall ensure appropriate construction and operating practices are in place to protect the integrity of the liner. Examples of such practices include, but are not limited to, use of cant strips at the base of ecology blocks to minimize stress on the liner at corners, and placement of steel plates within the decant cell in a manner that prevents puncture of the liner.

6. SCL shall ensure that all PCB remediation waste cleaned up pursuant to this approval is disposed of according to the requirements of 40 C.F.R. § 761.61(b). All shipments of PCB remediation waste for off-site disposal will comply with the manifest requirements of 40 C.F.R. § 761.207.

7. SCL shall ensure that any contractor conducting work authorized by this approval is provided a copy of the approval prior to the start of the authorized work. SCL shall ensure that all work subject to this approval is conducted according to the conditions of this approval.

8. SCL shall ensure that the Health and Safety Plan (HASP) documents appropriate training and personal protective equipment required for all personnel that may be exposed to PCBs during work subject to this approval. SCL will provide the EPA a copy of this health and safety plan according to Condition 14 below no later than one week following receipt of this approval.

9. SCL shall ensure that a copy of the interim remedial action completion report to be submitted to Ecology 60 days after the receipt of as-built information from the contractor is also provided to the EPA according to Condition 14 below.

10. Within ten (10) days following receipt of any written approval from Ecology pursuant to Agreed Order DE 5685 for any additional or modified work at or within the physical boundaries of the GSP facility that is subject in whole or part to the requirements of 40 C.F.R. Part 761, SCL will provide a written request to the EPA according to Condition 13 to modify this approval to include the additional or modified work requirements. This request shall include a copy of Ecology's written approval.

11. Nothing in this approval relieves SCL of any obligation to comply with other rules and regulations applicable to the activities subject to this approval.

12. If at any time before, during, or after cleanup and verification sampling of PCB remediation waste pursuant to this approval, SCL possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application) that activities approved herein may pose an unreasonable risk of injury to health or the environment, SCL must report such data or information via facsimile or e-mail to the EPA according to Condition

14 below within five working days, and in writing to the EPA Region 10 Regional Administrator within 30 calendar days of first possessing or being made aware of such data or information. SCL shall also report in the same manner, new or different information related to a condition or any element of the approved activities if the information is relevant to this approval. The EPA may direct SCL to take such actions it finds necessary to ensure the approved activities do not pose an unreasonable risk of injury to health or the environment. SCL shall follow such direction until written approval is obtained from the EPA that finds the condition(s) requiring such direction no longer poses an unreasonable risk of injury to health or the environment.

13. The EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 12 above, or any other information available to the EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. SCL may request modification of this approval by providing written notice according to Condition 14 below. If the EPA agrees with a request for modification, the EPA will provide written approval to SCL. Prior to obtaining written approval of a modification request, SCL shall comply with the existing approval conditions.

14. Submissions required by, or that may be submitted pursuant to, this approval shall be provided to the EPA as follows:

EPA:	Edward J. Kowalski, Director Office of Compliance and Enforcement EPA Region 10 1200 6th Ave., Suite 900, MS OCE-164 Seattle, Washington 98101 E-mail: Kowalski.edward@epa.gov Facsimile: (206) 553-7176
With copies to	Dave Bartus Office of Air, Waste and Toxics EPA Region 10 1200 6th Avenue, Suite 900, MS AWT-122 Seattle, Washington 98101 E-mail: Bartus.dave@epa.gov Facsimile: (206) 553-8509

Should you have any questions or comments, please contact Dave Bartus at (206) 553-2804, or Bartus.dave@epa.gov.

Sincerely,

Edward J. Kowalski
Director

Enclosures
1. References

2. Statement of Basis

cc: Mark Edens
Ecology Northwest Regional Office

Kris Flint
U.S. Environmental Protection Agency

Karen Keeley
U.S. Environmental Protection Agency

Enclosure 1
References

1) Work Plan, "Georgetown Steam Plant, Interim Action Work Plan," prepared for Seattle City Light, dated June 2, 2011
2) Letter, "North Boeing Field/Georgetown Steam Plant Agreed Order No. DE 5685, Georgetown Steam Plant Fence Line Interim Action – Approval of Screening Levels and Interim Action Work Plan," Mark Edens, Washington State Department of Ecology to Jennie Goldberg, Seattle City Light, dated June 7, 2011.
3) Reference to the GSP 761.61(a) notice.
4) E-mail, "TSCA Coordination," Mark Edens, Ecology to Jennie Goldberg, Seattle City Light, Carl Bach, The Boeing Company, and Peter Dumaliang, King County, dated Thursday, February 24, 2011 10:59 AM.
5) Work Plan, "Final Draft, Interim Action Work Plan, 2011 Fenceline Area Soil Excavation, North Boeing Field, Seattle, Washington," Landau Associates, dated June 2, 2011.
6) E-mail, "RE: EPA Approval of NBF/GTSP Fence Line Interim Action Work Plans," from Carl Bach, The Boeing Company, to Dave Bartus, EPA and Mark Edens, Ecology, dated August 8, 2011 (with attachments).
7) E-mail, "NBF/GTSP Interim Action - NRCES' Construction Plan and Decant Cell Drawing Submittal," Carl M. Bach, The Boeing Company, to Mark Edens, Washington State Department of Ecology and Dave Bartus, EPA, dated August 22, 2011 (with attachments).

Enclosure 2
Statement of Basis

Background

The Washington State Department of Ecology (Ecology) and the U.S. Environmental Protection Agency, Region 10 (EPA) are working to clean up contaminated sediments and control sources of recontamination in the Lower Duwamish Waterway (LDW) near Seattle, Washington. The Lower Duwamish Waterway (LDW) is an approximately 5.5 mile portion of the Lower Duwamish River which flows into Elliott Bay. The sediments along the LDW contain a wide range of contaminants which appears to be the result of years of nearby industrial activity and run off from urban areas. These contaminants include PCBs (polychlorinated biphenyls), PAHs (polycyclic aromatic hydrocarbons), chlorinated dioxins & furans, metals, and phthalates.

The EPA is leading the sediment contamination investigation for the LDW with support from Ecology. In 2001, the EPA added the LDW to the Superfund National Priorities List; Ecology added the LDW to the Washington Hazardous Sites List in 2002. The respective roles and responsibilities of the EPA and Ecology have been documented in "Lower Duwamish Waterway Site Memorandum of Understanding between the United States Environmental Protection Agency and the Washington State Department of Ecology," dated April 2004.

A number of sites and facilities in the vicinity of the LDW have been identified as sources contributing to sediment contamination. One area that has been identified as a source of PCB contamination is soils near and along the fence line separating the Georgetown Steam Plant, and the area North Boeing Field located within The Boeing Company Propulsion Engineering Labs (PEL) area (See Figure 1-1 of Reference 1). The GSP is owned by the City of Seattle, while NBF is owned by King County and The Boeing Company (Boeing). PCBs from this source area are believed to have contaminated the Slip 4 area of the LDW through storm water discharges (See Section 1 of Reference 1).

The Boeing Company, King County, and the City of Seattle (the Parties), entered into an Agreed Order (DE 5685) with Ecology to conduct an investigation at the GSP and NBF facilities. This Agreed Order was established pursuant to the state Model Toxics Control Act (MTCA), 70.105D Revised Code of Washington. Under the Agreed Order, the Parties are required to complete a Remedial Investigation and Feasibility Study (RI/FS) at the site. The purpose of the Remedial Investigation is to define the nature and extent of contamination at the site and to determine if it is contributing to the sediment contamination in the LDW. The Feasibility Study will use the results of the Remedial Investigation to evaluate and choose measures to cleanup contamination and prevent recontamination of the LDW sediments. Prior to completion of the RI/FS, Ecology and the Parties agreed to conduct certain interim measures to, among other objectives, reduce the quantity of contaminants (including PCBs) that may be transported via storm water flow into Slip 4 within the LDW). The work plan provided to, and approved by Ecology, in Reference 1 documents the specific source control work to be conducted. A similar work plan, entitled "Interim Action Work Plan, 2011 Fenceline Area Soil Excavation," has been provided to and approved by Ecology regarding properties adjacent to the GSP owned by King County and leased by The Boeing Company. The EPA is addressing federal approval of NBF Fenceline Area work under the Toxic Substances Control Act (TSCA) through a separate, but parallel, risk-based disposal approval.

Agency and Program Integration Issues

Prior to Ecology approval of the GSP interim action work plan, SCL had provided the EPA with a notice of self-implementing cleanup pursuant to the requirements of 40 C.F.R. § 761.61(a) for cleanup of PCBs at the GSP facility (Reference 3). Boeing also provided a similar submission to the EPA regarding cleanup of PCBs at the NBF fenceline area (See the EPA's separate risk-based disposal approval of the 2011 Fenceline Area Soil Excavation North Boeing Field work plan). The EPA's review of these two separate, but clearly related, notices of self-implementing cleanup identified several key issues. These issues include the applicability of self-implementing cleanups to these facilities, a need to comprehensively address all PCBs subject to the requirements of 40 C.F.R. Part 761 in the context of a broader cleanup and/or source control project, the need to ensure that the requirements of separate, but related work plans are appropriately integrated, and the potential inefficient duplication of efforts between the EPA and Ecology. These issues, and their resolution, are discussed in the following paragraphs.

Although TSCA implementing regulations at 40 C.F.R. § 761.61(a) explicitly allows for self-implementing cleanup of PCBs, this self-implementing authority is designed for, and typically applied to, a general, moderately-sized site where there should be low residual impact from remedial activities. The self-implementing procedure is rather proscriptive, and may be less practical for larger or environmentally diverse sites. The LDW uplands source control areas, including the GSP and NBF facilities, are not a general, moderately-sized site, and source control/cleanup requirements are generally more stringent than the proscriptive cleanup levels for self-implementing PCB cleanups. Also, the self-implementing administrative procedure is not flexible enough for use as a part of a phased approach to work (as is typical at complex sites) or to establish characterization, cleanup or verification requirements that differ from those in the TSCA self-implementing cleanup requirements but are better suited to full integration with work under different programs/authorities and that achieve the level of protectiveness necessary for source control objectives. Therefore, the EPA has determined that any authorizations necessary under TSCA PCB regulations be considered under the risk-based disposal authority of 40 C.F.R. § 761.61(c) rather than under self-implementing cleanup requirements of 40 C.F.R. § 761.61(a).

In general, cleanup and source control work at the GSP and NBF sites, at which PCBs subject to the PCB remediation waste requirements of 40 C.F.R. § 761.61 are found, must address constituents, sometimes including PCBs, that are not subject to TSCA requirements[2]. Therefore, effective cleanup should be structured around requirements developed through the more comprehensive cleanup process (including consideration of site characterization, risk evaluation/risk assessment, remedial alternatives development and selection, institutional control/land use controls, etc.). Even when there is overlap between MTCA and TSCA PCB cleanup, it often makes more sense to rely on the existing, more comprehensive cleanup programs than to duplicate the same work under TSCA. Therefore, the EPA has concluded that all work pertaining to PCB cleanup should be initially defined by and have at least preliminary review and endorsement by currently assigned lead agencies. (See http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/lower_duwamish_hp.html for a summary of source control areas and associated lead agency assignments). Where such work is subject to the TSCA requirements applicable to PCB Remediation Waste (as defined in 40 C.F.R. § 761.3), the EPA

[2] Some spills/releases of PCBs may not meet the definition of PCB remediation waste at 40 C.F.R. § 761.3, but nevertheless may be present at concentrations above MTCA cleanup levels, or may need cleanup to meet source control goals. For example, PCBs up to 49 ppm from spills or releases prior to April 18, 1978 are not PCB remediation waste subject to 40 C.F.R. § 761.61 requirements, but may still be found at concentrations above those deemed necessary for effective source control.

will require the facility owner /operator to provide the EPA an application for a risk-based disposal approval based on the work requirements reviewed and approved by the lead regulatory agency. Under this model, the assigned lead agency will have principle technical responsibility for site characterization, establishment of cleanup levels, evaluation of remedial or cleanup options, and remedy implementation for all contaminants of concern, including PCBs.

Ecology and the EPA have jointly developed documentation of a set of core principles and essential elements that more completely define a model for integration of the respective MTCA and TSCA roles and responsibilities of Ecology and the EPA in a manner that addresses the issues outlined above. As lead regulatory agency for LDW source control work, Ecology provided this documentation to the Parties in the form of an e-mail (Reference 4). Although this model is initially being applied to the GSP and NBF Fenceline Area work, the EPA and Ecology expect to apply the model more broadly to other LDW source control projects in the future. SCL's request for a risk-based disposal approval, along with the parallel request for the NBF Fenceline Area risk-based disposal approval, are the first two LDW source control projects to be evaluated under this model.

The EPA's Evaluation of Seattle City Light's Risk-Based Disposal Approval Application

In evaluating SCL's request for a risk-based disposal approval, the EPA has considered the following issues:

- Compliance with 40 C.F.R. § 761.61(c) requirements
- Relationship of this work to overarching cleanup requirements
- Adequacy of site characterization for cleanup purposes
- Scope of the proposed interim actions
- On-site management of PCB remediation waste
- Disposal of PCB remediation waste

The requirements of 40 C.F.R. § 761.61(c) specify that "Each application must contain information described in the notification required by §761.61(a)(3)." These requirements, in turn, specify that the application must contain a description of the contamination, site characterization information, a cleanup plan, and a certification requirement that ensures information used to assess or characterize the PCB contamination at the cleanup site are available for EPA inspection. Based on the agency and program integration framework discussed above, the EPA is accepting the information provided by SCL to Ecology pursuant to the enforceable requirements of Agreed Order DE 5685 as satisfying the application requirements of 40 C.F.R. § 761.61(c). The EPA notes that Condition 12 of this approval requires that SCL provide the EPA with any data or information (including but not limited to site conditions that differ from those presented in the application) that activities approved herein may pose an unreasonable risk of injury to health or the environment. This condition ensures that any information relevant to this approval is available to the EPA.

Relationship of This Work to Overarching Cleanup Requirements

Most complex cleanup projects, including the LDW sediment cleanup and associated source control work, are approached on a phased or iterative approach, with early phases focused on investigation,

characterization, and where appropriate, interim measures. Subsequent phases focus on development, implementation and monitoring of final remedial measures. This general model is being applied to the LDW sediment cleanup by the EPA through the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) process, and to uplands source control work by Ecology through the Model Toxics Control Act process.

The EPA's review of SCL's application for a risk-based disposal approval for the GSP interim action work plan is based on the EPA's determination that the existing Ecology process is fully adequate to establish overall cleanup objectives, schedules and priorities, and work requirements. Based on this determination, the EPA is not separately establishing overall cleanup objectives or schedules in this approval. The EPA retains the authority to establish such requirements, however, in this or any subsequent modification of it or any separate approval to ensure that cleanup of PCBs is conducted in full compliance with the requirements of 40 C.F.R. Part 761, and in a manner that ensures no unreasonable risk of injury to health or the environment. The EPA expects to continue to work closely with Ecology, the lead regulatory agency for LDW source control work, to help ensure full compliance with TSCA requirements, and effective integration of MTCA and TSCA requirements.

Adequacy of Site Characterization for Cleanup Purposes

SCL and Boeing have conducted several field investigations that help define the nature and extent of PCB contamination associated with the GSP and NBF properties. These various studies are identified in the interim action work plans provided to the EPA by SCL and Boeing as the basis for the respective applications for risk-based disposal approvals (See References 1 and 5). The purpose of these sampling exercises has been to document the location and extent of soils with PCBs exceeding 50 ppm to facilitate the division of excavated soils into different stockpiles for disposal, and to define the initial scope of excavation for PCB-containing soils. These sampling results are adequate for establishing the scope of the proposed interim actions. The EPA notes that the GSP interim action work plan states in Section 4.2.1 that additional excavation may be performed if samples used to confirm that the interim action levels have been achieved are above the proposed interim action levels.

One of the expectations established in the TSCA/MTCA integration framework documented in Reference 4 is that all spills or releases of PCBs meeting the definition of "PCB Remediation Waste" at 40 C.F.R. § 761.3 must be addressed. The GSP Interim Action Work Plan proposes to address soils containing PCBs less 50 ppm in accordance with MTCA, not TSCA requirements. However, this Work Plan does not include any discussion of the date of release and the source concentration of releases associated with PCBs currently at concentrations less than 50 ppm. Therefore, the Work Plan does not provide a basis for concluding that PCBs with as-found concentrations are not PCB remediation waste. Ordinarily, absent such information, the EPA makes a conservative assumption that such PCBs do meet the definition of PCB remediation waste, and are subject to the requirements of 40 C.F.R. § 761.61.

The corresponding Boeing Fenceline Interim Action work plan (Reference 5), however, does include a discussion of possible sources, dates, and source concentration of PCBs found in the fenceline area. In particular, Section 3.2 of the Boeing Fenceline Interim Action work plan states:

> "Although some PCB-containing materials have been identified at NBF, including concrete joint material, caulk, and paint, potential sources for the PCBs present in soil in the fenceline area have not been identified. PCBs were initially detected by Metro (Municipality of Metropolitan

> Seattle) at the NBF/GTSP site in 1982. Investigations and interviews by Metro at that time did not identify any recent releases of PCBs. Extensive subsequent investigations and review of historical documents by Ecology, Boeing, and the City also did not identify PCB releases at the NBF or GTSP properties. Based on these investigations, releases to soil in the fenceline area were determined to have occurred prior to April 1978, the date specified in the TSCA definition of a PCB remediation waste (40C.F.R. 761.3). Therefore, soil with concentrations of PCBs less than 50 mg/kg is not considered PCB remediation waste and the cleanup and disposal of this soil will be conducted in compliance with MTCA requirements and as an interim action in accordance with the NBF/GTSP Agreed Order."

While neither the GSP nor the Boeing Fenceline Interim Action work plans provide any documentation that the source of PCBs within the GSP project area and those within the NBF project area are from a common source, the location of the PCBs principally in the low-lying area along the fenceline area and the historic storm water flow paths documented in the two interim action work plans suggest that a common source of PCBs is a reasonable assumption.

Given the environmental complexity of the GSP and NBF project areas, and the acknowledgment that specific, verifiable potential sources of PCBs contributing to contamination in the two project areas have not been identified, the EPA has determined that analysis presented in the Boeing Fenceline Interim Action work plan cannot conclusively rule out the potential for a source with PCB concentrations greater than 50 ppm, or an unauthorized use, from which a release occurred after April 1978 such that PCBs with as-found concentrations less than 50 ppm would meet the definition of PCB remediation waste at 40 C.F.R. § 761.3. Therefore, the EPA is electing not to make a final determination as to whether or not PCBs with as-found concentrations less than 50 ppm within the GSP project area meet the definition of "PCB remediation waste." The EPA may elect to make such a determination at a later date through a modification of this approval. In doing so, the EPA acknowledges that even if a decision was made that PCBs with as-found concentrations less than 50 ppm do meet the definition of PCB remediation waste, the interim actions approved by Ecology under MTCA authority appear adequate to ensure no unreasonable risk of injury to health or the environment.

Scope of the Proposed Interim Actions

Since the proposed interim actions are focused on PCBs that could migrate to the LDW Slip 4 via storm water, PCBs that are known to be present in groundwater at or near the Low-Lying Area of the GSP facility are not considered as part of this interim action. Similarly, some PCBs which may be present in soils below the water table will not be addressed though this interim action, and will be considered through the RI/FS and final remedy selection process.

On-Site Management of PCB Remediation Waste

The GSP Interim Action work plan notes that soils with total PCB concentrations equal to or greater than 50 mg/kg (approximately ppm) will be segregated and placed in separate stockpiles, or direct loaded to designated trucks for disposal. The work plan also notes that there is a small area where soils with PCBs greater than 50 mg/kg extend into the saturated soil zone. Therefore, there is a potential for such soils to contain drainable groundwater that has been in contact with PCBs at concentrations greater than 50 ppm. The GSP Interim Action work plan does not document any particular management standards or practices associated with either stockpiling of PCB remediation waste or gravity dewatering

of PCB remediation waste. Therefore, the EPA is including a requirement to provide documentation of the specific equipment, structures, locations and work practices to be used for dewatering of excavated soils.

Disposal of PCB Remediation Waste

The GSP Interim Action work plan states that PCB remediation waste generated pursuant to this authorization will be disposed of in a TSCA-waste landfill such as the Chemical Waste RCRA/TSCA Subtitle C Facility near Arlington, OR. Although the scope of this approval does not extend to the final disposal of PCB remediation waste, the proposed method of disposal is compliant with the performance-based disposal requirements for non-liquid PCB remediation waste at 40 C.F.R. § 761.61(b)(2)(i).

The GSP Interim Action work plan documents that wastewater from excavation dewatering and gravity dewatering of stockpiled soils will be collected, treated and discharged to the sanitary sewer through a treatment system anticipated to consist of an oil/water separator, a settling tank, a particulate filter to reduce suspended solids, and a granular activated carbon filter. Discharge of water from this treatment system will be regulated by the King County Industrial Waste (KCIW) program in compliance with the requirements of 40 C.F.R. Part 403. To the extent that wastewater contains, or has been in contact with, PCBs meeting the definition of PCB remediation waste, such wastewaters are subject to the decontamination standards of 40 C.F.R. § 761.79(b). The proposed methods of decontamination are within the scope of methods authorized by 40 C.F.R. § 761.79(b), so separate authorization is not necessary under this approval. Decontamination to standards established by the KCIW program in compliance with 40 C.F.R Part 403 is an acceptable means of compliance with the requirements of 40 C.F.R. § 761.79(b)(1)(ii), since 40 C.F.R Part 403 implements the requirements (among others) of Parts 307 and 402(b), of the Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (Pub. L. 95–217).

Discussion of Conditions

1. SCL is authorized to perform cleanup, verification sampling, and temporary on-site stockpile storage of PCB remediation waste with PCB concentrations greater than or equal to 50 ppm as documented in Reference 1.

This condition establishes overall authorization for the proposed interim cleanup and verification sampling of PCB remediation waste with as-found concentrations greater than 50 ppm, and defines the scope of the authorized activities. The EPA notes that the interim action work plan approved by Ecology includes requirements for contaminants other than PCBs. The requirement to conduct the authorized activities as documented in Reference 1 includes only such requirements that directly or indirectly relate to PCBs subject to the requirements of 40 C.F.R. § 761.61. For example, verification sampling for metals, benzo-*a*-pyrene, total petroleum hydrocarbons, and dioxins/furans are not within the scope of this approval. The EPA notes that the final scope of work subject to this approval will be determined by field verification sampling.

2. SCL must complete work authorized by Condition 1 by December 31, 2011. As a framework for anticipated final cleanup, this approval will remain in effect for the duration of such work requirements as the EPA may establish through future modifications of this approval. SCL may request an extension to this authorization by providing a written request to the EPA according to Condition 13.

The interim action work plan approved by Ecology (Reference 1) does not provide a detailed implementation schedule, other than the associated work is "to occur during the 2011 construction season permitting interim actions to occur simultaneously on GTSP and Boeing-leased properties during the regional dry season." Section 7 of the application does state that excavation activities are anticipated to require approximately 2 months to complete, and that the interim action completion report will be submitted to Ecology 60 days after the receipt of as-built information from the contractor. The EPA is establishing a requirement to complete the interim cleanup activities established in Condition 1 by December 31, 2011, to allow completion of field activities with reasonable additional time to complete follow-up activities such as analytical, quality assurance/quality control, and reporting.

Since this approval is expected to be modified in the future to include future final cleanup activities, as well as the potential for additional interim cleanup activities, the EPA is establishing that this approval as a whole will remain in effect for the duration of corresponding modifications which the EPA may make.

3. In conducting work authorized by this approval, SCL shall ensure that effective controls are in place to prevent or minimize dispersal of soil other material contaminated with PCBs. Such measures may include, but are not limited to, use of exclusion and decontamination zones around work areas, and the source control activities documented in Section 3.6.1.1 of Reference 1. If water is used for dust control purposes, the amount of water shall be limited to that necessary for effective dust control to minimize the potential for the spread of contamination. All water used for decontamination and vehicle/truck washes shall be managed in the wastewater treatment system documented in Section 3.4 of Reference 1.

The EPA is establishing this condition to ensure that the authorized interim cleanup activities do not result in off-site migration of PCBs, and that the authorized activities do not pose an unreasonable risk of injury to health of on-site workers or the public, or to the environment.

4. SCL shall ensure that any on-site storage of PCB remediation waste in temporary stockpiles is conducted in a manner that prevents, consistent with best management and construction practices, migration or dispersal of PCBs as necessary to ensure no unreasonable risk of injury to health or the environment. Gravity dewatering of PCB remediation waste must be carried out as authorized by the EPA according to information provided pursuant to Condition 5.

This condition is similar to requirements of Condition 3, but specific to on-site temporary storage of PCB remediation waste. The work requirements documented in Reference 1 do not include specifics as to whether on-site temporary storage of soils containing PCBs subject to this approval will occur, or how such temporary storage will be carried out. However, information provided to the EPA in Reference 6 suggests the possibility of a "Laydown Area for Contractor Gravity Dewatering of Excavated Soils" within the GSP project area. The EPA is establishing this condition in anticipation of this temporary on-site storage of PCB remediation waste.

5. SCL shall ensure that any dewatering of excavated soils as discussed in Section 3.4 of SCL's application (Reference 1) will occur in the decant cell located, designed and operated as documented in Reference 7. In constructing the decant cell, SCL shall ensure appropriate construction and operating practices are in place to protect the integrity of the liner. Examples of such practices include, but are not limited to, use of cant strips at the base of ecology blocks to minimize stress on the liner at corners, and placement of steel plates within the decant cell in a manner that prevents puncture of the liner.

The EPA is establishing this condition to ensure on-site dewatering of PCB remediation waste to be excavated from areas below the seasonal groundwater level is conducted in a manner that prevents the spread of contamination within or beyond the project area. SCL's application provided only a very general description of the location, construction and operation of a dewatering facility. Supplemental information in Reference 7 provides the EPA with a basis to conclude that the dewatering activities will be conducted in a manner that does not pose an unreasonable risk of injury to health or the environment.

6. SCL shall ensure that all PCB remediation waste cleaned up pursuant to this approval is disposed of according to the requirements of 40 C.F.R. § 761.61(b). All shipments of PCB remediation waste for off-site disposal will comply with the manifest requirements of 40 C.F.R. § 761.207.

As noted in the Statement of Basis section of this approval, the scope of this approval does not extend to the final disposal of PCB remediation waste. This condition ensures that off-site shipment and disposal of PCB remediation cleaned up according to the requirements of this approval is in compliance with the requirements of 40 C.F.R. Part 761.

7. SCL shall ensure that any contractor conducting work authorized by this approval is provided a copy of the approval prior to the start of the authorized work. SCL shall ensure that all work subject to this approval is conducted according to the conditions of this approval.

The EPA is issuing this approval to SCL, who will be responsible for compliance with its conditions. The EPA recognizes that SCL will engage the services of a contractor to perform the authorized work, and is establishing this condition to ensure that any and all contractors performing work under this approval are aware of its requirements.

8. SCL shall ensure that the Health and Safety Plan (HASP) identified in Section 5 of Reference 1 documents appropriate training and personal protective equipment required for all personnel that may be exposed to PCBs during work subject to this approval. SCL will provide the EPA a copy of this health and safety plan according to Condition 14 no later than one week following receipt of this approval.

SCL's RBDA application does not include a health and safety plan, and it does not discuss any training requirements for personnel conducting work under this approval. Both are important to ensure that work is conducted safely and in a manner that does not pose an unreasonable risk of injury to health or the environment. This condition ensures that a health and safety plan is prepared and that it includes elements that the EPA considers necessary. The EPA is not including an explicit requirement for the EPA's review and approval, but this condition does ensure that the EPA has access to the plan. If the EPA should identify deficiencies that require revision, the EPA may establish necessary revisions through modification of this approval pursuant to Condition 13.

9. SCL shall ensure that a copy of the interim action completion report to be submitted to Ecology 60 days after the receipt of as-built information from the contractor is also provided to the EPA according to Condition 14.

This condition is established to ensure that reporting associated with this interim cleanup approval is made available to the EPA concurrent with submission to Ecology.

10. Within ten (10) days following receipt of any written approval from Ecology pursuant to Agreed Order DE 5685 for any additional or modified work at or within the physical boundaries of the GSP facility that is subject in whole or part to the requirements of 40 C.F.R. Part 761, SCL will provide a

written request to the EPA according to Condition 13 to modify this approval to include the additional or modified work requirements. This request shall include a copy of Ecology's written approval.

As noted elsewhere, the initial version of this approval is intended to address interim cleanup actions, with the anticipation of additional site characterization and corresponding final cleanup measures to be established later, generally following the cleanup process under the state Model Toxics Control Act (MTCA). This condition ensures that SCL will provide the EPA with a request for modification of this approval as subsequent stages of the overall cleanup are developed.

11. Nothing in this approval relieves SCL of any obligation to comply with other rules and regulations applicable to the activities subject to this approval.

This condition is established to ensure that this approval is not interpreted to supersede, or provide relief from, any other rules or regulations applicable to the activities subject to this approval.

12. If at any time before, during, or after cleanup and verification sampling of PCB remediation waste pursuant to this approval, SCL possesses or is otherwise made aware of any data or information (including but not limited to site conditions that differ from those presented in the application) that activities approved herein may pose an unreasonable risk of injury to health or the environment, SCL must report such data or information via facsimile or e-mail to the EPA according to Condition 14 within five working days, and in writing to the EPA Region 10 Regional Administrator within 30 calendar days of first possessing or being made aware of such data or information. SCL shall also report in the same manner, new or different information related to a condition or any element of the approved activities if the information is relevant to this approval. The EPA may direct SCL to take such actions it finds necessary to ensure the approved activities do not pose an unreasonable risk of injury to health or the environment. SCL shall follow such direction until written approval is obtained from the EPA that finds the condition(s) requiring such direction no longer poses an unreasonable risk of injury to health or the environment.

This condition ensures that if any information not available to the EPA at the time this approval is issued becomes known, and it will be made available to the EPA for purposes of ensuring that activities subject to this approval continue to pose no unreasonable risk of injury to health or the environment. This condition also ensures EPA's ability to make changes to the storage activities, including withdrawing approval for storage, as necessary to ensure no unreasonable risk of injury to health or the environment.

13. The EPA reserves the right to modify or revoke this approval based on information provided pursuant to Condition 12, or any other information available to the EPA that provides a basis to conclude that activities covered by this approval pose an unreasonable risk of injury to health or the environment. SCL may request modification of this approval by providing written notice according to Condition 14. If the EPA agrees with a request for modification, the EPA will provide written approval to SCL. Prior to obtaining written approval of a modification request, SCL shall comply with the existing approval conditions.

This condition establishes a basic framework for modification of this approval.

14. Submissions required by, or that may be submitted pursuant to, this approval shall be provided to EPA as follows:

EPA: Edward J. Kowalski, Director
Office of Compliance and Enforcement
EPA Region 10
1200 6th Ave., Suite 900, MS OCE-164
Seattle, Washington 98101
E-mail: Kowalski.edward@epa.gov
Facsimile: (206) 553-7176

With copies to Dave Bartus
Office of Air, Waste and Toxics
EPA Region 10
1200 6th Avenue, Suite 900, MS AWT-122
Seattle, Washington 98101
E-mail: Bartus.dave@epa.gov
Facsimile: (206) 553-8509

This condition specifies the addresses for submissions required or that may be submitted pursuant to this approval.